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Cirry S. Klann

**PATENT** 

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

David A. Fischhoff, Roy L. Fuchs, Paul B. Lavrik, Sylvia A. McPherson, Frederick J. Perlak

Serial No.: Unassigned

Filed: August 31, 2001

For: COLEOPTERAN TOXIN PROTEINS OF BACILLUS THURINGIENSIS (Amended) Prior application

Serial No.: 09/027, 998

Examiner: A. Nelson

Group Art Unit: 1638

Atty. Dkt. No.: 11899.0195.DVUS01

# **Box Patent Application**

Commissioner for Patents Washington, D.C. 20231

# PRELIMINARY AMENDMENT

Prior to examining this application, please amend the application as follows:

### IN THE SPECIFICATION:

At page 1, line 1, please delete the existing title and replace with

-- Coleopteran toxin proteins of Bacillus thuringiensis--

At page 1, line 2 please insert a new paragraph:

--This application is a division of pending application Serial No. 09/027,998 filed February 23, 1998, now U.S. Patent 6,284,949, which is a continuation of application Serial No. 08/759,446

filed December 5, 1996, now U.S. Patent 5,763,241, which is a continuation of application Serial No. 08/435,101 filed May 4, 1995, which is a divisional of application Serial No. 08/072,281 filed June 4, 1993, now U.S. Patent 5,495,071, which is a continuation of application Serial No. 07/523,284 filed May 14, 1990, which is a continuation of 07/044,081 filed April 29, 1987, the entire contents of all are hereby incorporated by reference.--

## **IN THE CLAIMS:**

Please cancel claims 1-36, 39, and 43-52, without prejudice.

Please add the following new claims:

- -- 53. A toxin protein according to SEQ ID NO:2, comprising a deletion consisting of the removal of one or more amino acid residues from the N-terminal 76 amino acids.
- 54. A toxin protein of claim 53, wherein the deletion comprises the removal of at least a single amino acid residue from the N-terminal 76 amino acids.
- 55. A toxin protein of claim 53, in which the deletion comprises the N-terminal 15 amino acids.
- 56. A toxin protein of claim 53, in which the deletion comprises the N-terminal 48 amino acids.
- 57. A toxin protein of claim 53, in which the deletion comprises the N-terminal 57 amino acids.
- 58. A toxin protein of claim 53, in which the deletion comprises the N-terminal 76 amino acids.
- 59. A toxin protein of SEQ ID NO:2 comprising a deletion of the N-terminal 47 amino acids, and further comprising a substitution of threonine to aspartic acid at amino acid residue 49.

60. A toxin protein of SEQ ID NO:2 comprising a substitution of methionine to isoleucine at amino acid residue 48. --

### REMARKS

The specification has been amended to recite the current history of this divisional application as well as to have a title reflective of the claimed subject matter.

With this amendment there are now 13 claims pending, namely claims 37-38, 40-42, and 53-60. The newly added claims are commensurate with the original claims and support for them can be found on page 43 of the Specification as well as in Figures 9 and 10. For the Examiner's convenience, a list of currently pending claims is attached hereto.

The Commissioner is authorized to charge the filing fee and claims fee to Deposit Account No. 01-2508/11899.0195.DVUS01. Should any additional fees be required for any reason relating to the enclosed materials, the Commissioner is authorized to deduct said fees from Deposit Account No. 01-2508/11899.0195.DVUS01.

Respectfully submitted,

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Date: August 31, 2001

Attorney for Assignee
MONSANTO TECHNOLOGY LLC

# **Pending Claims**

- 37. A toxin protein having the amino acid sequence (1-644) shown in Figure 10.
- 38. A toxin protein of Claim 37 in which the N-terminal 15 amino acids have been removed.
- 40. A toxin protein of Claim 37 in which the N-terminal 48 amino acids have been removed.
- 41. A toxin protein of Claim 37 in which the N-terminal 57 amino acids have been removed.
- 42. A toxin protein of Claim 37 in which the N-terminal 76 amino acids have been removed.
- 53. (New) A toxin protein according to SEQ ID NO:2, comprising a deletion consisting of one or more amino acid residues from the N-terminal 76 amino acids.
- 54. (New) A toxin protein of claim 53, wherein the deletion comprises the removal of at least a single amino acid residue from the N-terminal 76 amino acids.
- 55. (New) A toxin protein of claim 53, in which the deletion comprises the N-terminal 15 amino acids.
- 56. (New) A toxin protein of claim 53, in which the deletion comprises the N-terminal 48 amino acids.
- 57. (New) A toxin protein of claim 53, in which the deletion comprises the N-terminal 57 amino acids.

- 58. (New) A toxin protein of claim 53, in which the deletion comprises the N-terminal 76 amino acids.
- 59. (New) A toxin protein of SEQ ID NO:2 comprising a deletion of the N-terminal 47 amino acids, and further comprising a substitution of threonine to aspartic acid at amino acid residue 49.
- 60. (New) A toxin protein of SEQ ID NO:2 comprising a substitution of methionine to isoleucine at amino acid residue 48.

# 

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For: Coleopteran toxin proteins of Bacillus

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**Prior Application** 

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Filed: February 23, 1998

Atty. Dkt. No.: 11899.0195.DVUS01

(MOBT:195--1)

# SUBMISSION OF FORMAL DRAWINGS

**BOX: PATENT APPLICATION** 

Commissioner for Patents Washington, D.C. 20231

Sir:

In connection with filing a divisional application under 37 C.F.R. § 1.53(b) of co-pending prior application Serial No. 09/027,998 filed February 23, 1998, Applicant hereby submits formal drawings (Figures 1 through 18 comprising 33 sheets) for the above-referenced application.

Respectfully, submitted,

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